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"As with the plan to restore the Everglades, our mission is clear: Get the water right by improving the quantity, quality, timing and distribution of freshwater flow," Project Manager Janet Starnes said. "In partnership with the Corps and area stakeholders, we are looking at the big picture of Southwest Florida 50 years into the future."

Act locally

While the Feasibility Study looks at long-range solutions, the SFWMD is also actively working to address more immediate concerns.

Even though the region boasts over 50 inches of rain a year (slightly less than the Lower East Coast), it still suffers from periodic water shortages on a regular basis. The area relies almost exclusively on rainfall to replenish the myriad surficial, intermediate and deep aquifers that supply fresh water to Southwest Florida. Heavy withdrawals from these aquifers can lead to saltwater intrusion into coastal freshwater wellfields.

Fort Myers, and many other communities in Southwest Florida, are among the fastest growing in the state, and in the nation. They are also a mecca for seasonal residents and tourists.

Because of resource limitations, Southwest Florida communities have led the way in water conservation. In addition to supporting District-imposed water-use restrictions during water shortage emergencies, local governments have adopted watering bans to limit wasteful practices. Use of alternative sources is the norm throughout Southwest Florida – where more than 80 percent of waste water produced in the urban areas is reused.

Bruce Adams, water conservation officer for the SFWMD, has worked with local governments and user groups in Southwest Florida for over two decades. "The people of Southwest Florida are to be commended for their efforts to conserve," Adams said. "In times of crisis they have stepped up to the plate and demonstrated a willingness to do their part."

"We have to work both smarter and harder to keep up with the increase in demands and to ensure preservation of the irreplaceable ecosystem that is Southwest Florida."

– Carol Wehle
Director,
Greater West Coast

SFWMD Governing Board Chair and Fort Myers resident Trudi Williams echoes those sentiments and recommends that the southwest region would be best served with a year-round approach to demand management – not just during times of shortages. "Research shows that while Southwest Florida leads the state in use of alternative sources, and has demonstrated a strong conservation ethic, it is looking to the District to establish standards for proper watering regulations," Williams said. "The right thing for this agency to do," she continued, "is to develop sensible year-round rules that can be adopted here, and perhaps used in other areas of the District."

Proposals to implement year-round conservation initiatives – including permanent outdoor watering limits – will affect every homeowner with a lawn.

Williams' leadership on this issue may soon become a reality for Lee, Collier and Charlotte counties. Following an affirmative vote by the SFWMD Governing Board in October, District staff has begun the process to develop rules that call for year-round conservation measures.

Smart growth

The District is working with local governments and the business community to encourage smart growth within the region that helps address all four water management mission elements: flood control, water supply, water quality and natural systems. According to Carol Wehle, "This area has seen a 300 percent population increase over the past three decades. As that phenomenal growth rate continues, our emphasis has shifted to working with developers to plan for communities that can sustain the resource base which, in turn, is linked to our future economic base."

A successful example of this new approach is the demonstrated coordination and cooperation by separate, but adjacent developers working together to restore the area's historic flow ways. "We all know that development is going to continue in Southwest Florida, and we also recognize that we do not have the same extensive flood control infrastructure in place as on the southeast coast," Wehle said. "But we have a chance to have something better. By collaborating with the regulated community and environmentalists we can review, permit and develop projects that provide protection to residents while at the same time enhancing and restoring our valuable natural resources."

Along with the continued commitment of the South Florida Water Management District to address lower west coast issues, Wehle has a plan to further bolster and accelerate restoration efforts in the community. She is coordinating with area governments and legislators to help identify and secure additional state funding for area projects and initiatives. So if you can't reach her in her McGregor Boulevard office during the next few months, you can probably catch her on her cell phone…. in Tallahassee!

Paradise found

Just a half hour drive from downtown Fort Myers, you can commune with nature in the pristine and glorious setting of the Corkscrew Regional Ecosystem Watershed – a land reminiscent of a simpler time – a time when the variables of the weather ruled supreme. This land looks, even now, much like it appeared to the native Calusa thousands of years ago. It is a land and ecosystem that is the heart of Southwest Florida. It is an area most worthy of preservation and protection.

The Invisible Loop

Water control by remote

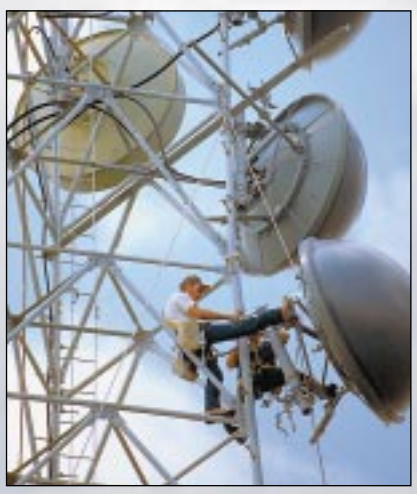
It will not pop your popcorn, but make no mistake – the microwave system in place in southern Florida brings a new meaning to the word, jiffy. To manage water for six million people, immediate communications and control are critical to routine operations and imperative during emergency operations. A $10 million electronic telemetry system – the invisible microwave loop – is the District's equivalent of an instant messenger.

It is one of the most extensive remote water control systems in the country, unique in the scope and depth of information it provides. Numerous sensors record water levels, wind velocities, rainfall, water temperature and salinity levels at coastal structures. Electronic digital signals are transmitted between sensors and control units in the field and operators in the West Palm Beach control center 24 hours a day. VHF radio and the microwave loop interconnect the entire telemetry system. Immediate access to information is a primary benefit of this system.

The District maintains and operates the gates and locks that allow it to convey water throughout an extensive system of canals from Orlando to Florida Bay – all part of the Central and Southern Florida Flood Control Project. Approximately 500 employees are located at sites from Kissimmee in the north to Homestead in the south, and from West Palm Beach on the east coast to Naples on the west coast. Many work out of field stations while others are assigned directly to pumping stations which house pumps large and powerful enough to move huge quantities of water.

For many years, the flood control system was operated manually or by means of local automatic water level controls. Each day, field crews would report the water levels and gate positions by radio to water managers at District headquarters in West Palm Beach. Then, depending on conditions, gates would be raised or lowered on-site, and/or pumps could begin operating.

Today, gates in Miami or Stuart may be opened or closed remotely on command by an electronic impulse, which is triggered by the push of a button or a computer key stroke from tens or hundreds of miles away. This ability to control equipment remotely is especially significant before, during and after a hurricane or powerful storm. Staff avoids the precarious task of manually operating coastal structures in dangerous situations while maintaining safe water levels throughout the flood control system.



The District's communication loop spans almost 5,000 square miles. It extends northward from West Palm Beach to Stuart, around Lake Okeechobee northwest to Lake Istokpoga, back around the west side of the lake to Moore Haven and then east to Clewiston. Southward, the system extends to Homestead. Plans call for the system to be expanded to Kissimmee.

The communications system is an invisible loop that sends and receives signals in both directions. Though designed to withstand winds up to 200 mph, if one tower is damaged, the telemetry system takes control and reverses the direction of communications along the loop so that information flow can be achieved along the opposite direction. This redundancy increases the reliability of the system during emergency operations.

Hurricane Season 2002 has now blown by. Late in the season, Floridians kept one eye on Kyle as he stirred the Atlantic and the other on Hurricanes Isidore and Lili as they skirted the state and roared up the Gulf. Though their forces bypassed the state this year, there are no guarantees for the future. While turquoise seas now gently lap the coastlines under a seemingly never-ending blue sky, we know the calm is temporary. Preparing for every storm is an integral part of day-to-day activities year-round at the District. The invisible loop offers one more assurance that communications will be reliable and the public's safety better ensured.